UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/187,370	11/06/1998	DONALD C. WILCOXSON	22-0009	2971

7590	05/07/2004		EXAMINER

TRW
LAW DEPARTMENT
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REDONDO BEACH, CA 90278

EXAMINER
ABELSON, RONALD B

ART UNIT	PAPER NUMBER
2666	

DATE MAILED: 05/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _04 February 2004_.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1,6-10,21 and 22_ is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1,6-10,21 and 22_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _06 November 1998_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All   b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

Withdrawal of Finality

1.   The indicated allowability of claims 1, 6-10, 21, and 22 is

withdrawn in view of the newly discovered reference(s) to

Seshadri.   Rejections based on the newly cited reference(s)

follow.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which

forms the basis for all obviousness rejections set forth in this

Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or
> described as set forth in section 102 of this title, if the differences between the
> subject matter sought to be patented and the prior art are such that the subject matter
> as a whole would have been obvious at the time the invention was made to a person having
> ordinary skill in the art to which said subject matter pertains. Patentability shall not
> be negatived by the manner in which the invention was made.

3.   Claims 1, 6-10, and 21 are rejected under 35 U.S.C. 103(a)

as being unpatentable over Olds (5,574,969) in view of Seshadri

(US 6,044,073).

4.   Regarding claim 1, Olds teaches a method and apparatus for

interference management of a communications satellite serving

multiple user terminals in a satellite based cellular

communications system (fig. 1).

Regarding claims 1, the system comprises receiving a
request for service from a user terminal (col. 9 lines 23 - 26).

Regarding claims 1, the system comprises accessing a
database parameter of communications system parameters including
user terminal database parameter (fig. 6 box 98, col. 9 lines
58-59), antenna pattern parameters (antenna pattern, col. 10
lines 1-4), spacecraft/antenna point error parameters (Doppler
frequency shift, col. 10 lines 1-4). Note, the Doppler frequency
error can be due to movement of the antenna, and link condition
parameters (effects of propagation delay, col. 4 lines 3-4).

Regarding claim 1, the system applies an algorithm to at
least one communications system parameter to determine a
connection parameter to minimize intra-system interference based
in part upon the database of communications system parameters
for the user terminal (non-interfering channel is chosen, col.
10 lines 1-4).

Regarding claim 1, the system allocates the connection and
makes the connection (fig. 6 box 100, col. 10 lines 1-4).

Regarding claim 1, the system makes a communications
connection with the processing communications satellite by the
user terminal using the connection parameter (fig. 6 box 100,
col. 9 line 66 - col. 10 line 4).

Although Olds teaches multiple user terminals, the reference is silent on prioritizing the multiple user terminals according to a selected criteria, wherein the selected criteria includes an amount of error correction selected by the user terminal, as specified in claim 1; and the selected criteria includes bandwidth selected by the user terminal, as specified in claim 21.

Seshadri teaches prioritizing the multiple user terminals according to a selected criteria (sensitive to signal errors, col. 2 lines 9 - 17), wherein the selected criteria includes an amount of error correction selected by the user terminal (time modulation, col. 7 line 66 - col. 8 line 9) , as specified in claim 1. Note, the examiner maintains that certain terminals will have data that is more sensitive to signal error than others and therefore will request a greater degree of time modulation. Regarding claim 21, the selected criteria includes bandwidth selected by the user terminal. Note, time modulation is dependent upon the amount of bandwidth available for use (col. 2 lines 32-34).

Therefore it would have been obvious to one of ordinary skill in the art, having both Olds and Seshadri before him/her and with the teachings [a] as shown by Olds, an interference management of a communications satellite serving multiple user

terminals in a satellite based cellular communications system,

and [b] as shown by Seshadri, time modulation, to be motivated

to modify the system of Olds by prioritizing different users

according to their sensitivity to signal errors and having the

users transmit data with varying degrees of time modulation.

This can be accomplished by following the time modulation

algorithm of Seshadri (fig. 3 box 313, 315, col. 7 line 66 -

col. 8 line 9). The algorithm may be implemented in software.

This would improve the by applying greater error protection to

data that is sensitive to signal errors.

Regarding claim 6, monitoring if the communications

connection is still active (Olds: fig. 6 box 94, col. 9 lines 23

- 26).

Regarding claim 7, redetermining the connection parameter

based upon an updated communications system parameter (Olds:

col. 10 lines 1-4).

Regarding claim 8, the connection parameter is a frequency

channel (Olds: channel, col. 10 lines 1-4).

Regarding claim 9, time slot assignment (Olds: col. 3 lines 43-44).

Regarding claim 10, updating the group of communications systems parameters after the communications connection ends (Olds: pre-planned assignment pools, col. 10 lines 17-19). The examiner maintains that the pre-planned assignment pools may be formed after the communications connection ends.

5.   Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Olds and Seshadri as applied to claim 1 above, and further in view of Solondz (US 5,615,249).

Although the combination teaches prioritization based upon a selected criteria, the combination is silent on the selected criteria includes a fee schedule of the users terminal.

Solondz teaches, in a cellular environment, prioritization based upon fee (col. 2 lines 46-52).

Therefore it would have been obvious to one of ordinary skill in the art, having both the combination of Olds and Seshadri and Solondz before him/her and with the teachings [a] as shown by the combination of Olds and Seshadri, an interference management of a communications satellite serving

multiple user terminals in a satellite based cellular

communications system, and [b] as shown by Solondz, in a

cellular environment, prioritization based upon fee, to be

motivated to modify the system of the combination of Olds and

Seshadri to be motivated to modify the system of the combination

by prioritizing users based upon fee. This could be accomplished

by storing in the database a fee schedule identifier for each

user. This modification can be performed in software. This would

improve the system by allowing priority users access to the

system despite excess demand on the network (col. 2 lines 46-

52).

Conclusion

6.   Any inquiry concerning this communication or earlier

communications from the examiner should be directed to Ronald

Abelson whose telephone number is (703) 306-5622. The examiner

can normally be reached on M-F.

If attempts to reach the examiner by telephone are

unsuccessful, the examiner's supervisor, Seema Rao can be

reached on (703) 308-5463. The fax phone number for the

organization where this application or proceeding is assigned is

703-872-9306.

Information regarding the status of an application may be

obtained from the Patent Application Information Retrieval

(PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status

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Private PAIR only. For more information about the PAIR system,

see http://pair-direct.uspto.gov. Should you have questions on

access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Ronald Abelson
Examiner
Art Unit 2666

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4/19/04

SEEMA S. RAO   4/27/04
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600